

A New Genus and Two New Species of Tettigids (Orthoptera), with a Note on *Nomotettix* *borealis* Walker.

By J. L. HANCOCK, Chicago, Illinois.

(Plate XX.)

Two new tettigids from the southern United States herewith described, are noteworthy as representing a new genus closely allied to *Neotettix* Hancock. Rehn and Hebard recently recorded¹ under the genus *Neotettix* another species called *proavus*, from Georgia and North Carolina, which properly belongs to this new genus; so that three species, one of which might possibly be a race, are known within our borders. Of these three species, *nullisinus*, from Brownsville, Texas, is selected because of its clearly defined characters, as the type of the genus, to which I have given the name *Cavotettix*. All three members of the genus, namely: *Cavotettix nullisinus* sp. nov., *Cavotettix proavus* Rehn and Hebard, and *Cavotettix apterus* sp. nov., are easily separated from members of the genus *Neotettix*.

CAVOTETTIX genus nov.

Somewhat resembling in general aspect the genus *Neotettix* Hancock in the small size, the abbreviated pronotum, and the wide and nonproduced vertex as viewed from above, but differing as follows: the body apterous or subapterous; the median carina of the vertex more compressed; the somewhat wider scutellate frontal costa; in the tectate dorsum, with the median carina of the pronotum compressed-cristate. This genus is also differentiated by the broad scapular area at the sides of the pronotum; the lateral lobes of the pronotum bearing but one deep and angular excavate sinus, the superior tegminal sinus being vestigial or entirely obliterated; the tegmina either absent, or minute, vestigial; the wings absent or rudimentary, normally covered from view; the first joint of the hind tarsi nearly twice the length of the second and third combined.

¹ Proc. Acad. Nat. Sciences, pp. 139, 140, 1916, plate XII, Figs. 1-2.

This genus borders on the Cladonotinae, as evidenced by the widely forked scutellate frontal costa; however, the other general characters present, perhaps, a greater leaning toward the Tettiginae.

Type: Cavotettix nullisinus sp. nov.

Cavotettix nullisinus sp. nov. (Pl. XX, figs. 1, 1a).

♀.—Description drawn from type. Stature moderately small, above coarsely granulate-rugose, sparingly scattered with tubercles on the disc of the pronotum.

Antennae short, eyes moderately small but prominent, head having the cheeks depressed below the antennae. Vertex nearly twice the width of one of the eyes, the median carina prominent, compressed and elevated above the eyes, arcuate and forming with the frontal costa a subrounded advanced profile, yet flattened in front and sub-sinuate between the eyes and below at the median ocellus; frontal carinulae of vertex interrupted and open in front on each side next to the median carina, but outwardly curved and little compressed at the sides next to the eyes; surface of vertex between the eyes fossulate forward and mammilate backward on each side, the occiput partly covered behind; frontal costa widely forked, sulcate and divergent above between the eyes, widely separated and scutellate between the antennae, between the latter, and below, the rami subparallel.

Pronotum with the dorsum strongly tectiform, coarsely granulate-rugose; median carina sharply compressed, translucent, arcuate forward before the shoulders, longitudinally flattened over the middle area, and convex declivent toward the pronotal apex; dorsal front margin of pronotum truncate; lateral carinae conspicuous, the humeral angles very obtuse angulate; hind process stout, abbreviated, scarcely reaching to the knees of the hind femora; the lateral margins gradually convergent backward to near the apex, where they more abruptly converge to form an acute angle with an obtuse subtruncate apex, not at all emarginate; the anterior prozonal carinae behind the front border little elevated and parallel; sides of pronotal process with a broad somewhat undulate scapular area, widest above the articulation of the hind femora, narrowing backward to the apex; lateral lobes of pronotum posteriorly bearing only one large inferior sinus, deeply angularly excavate; the superior or tegminal sinus rudimentary, represented by a slight excavation nearly the length of the tegmina, and with a very indistinct notching forward; posterior angles of the lateral lobes broadly rounded externally, the lateral inferior margins little dilated.

Tegmina visible but very minute, the part showing narrow, and nearly twice the length of one of the eyes, but lying partly covered in the recess of the vestigial sinus; wings rudimentary, only extending

beyond the tegmina about the length of the latter, but normally covered by the hind process.

Fore femoral margins above entire, below subundulate; middle femora little compressed, margins minutely crenulate, very indistinctly undulate above and below; hind femora robust, the superior marginal carina crenulate, terminating in a pregenital tooth but not sharp; and an inconspicuous genicular eminence; the outer pagina rugose granulate, bearing on the outer face above a series of large oblique granulate tubercles; first joint of the posterior tarsi very much longer than the second and third combined.

Length of body, 9 mm.; pronotum, 7 mm.; hind femora, 5 mm.

Habitat. Brownsville, Texas. (Townsend).

Type: ♀ Brownsville, Texas, in my collection.

Cavotettix apterus sp. nov. or race (Plate XX, figs. 2-2c).

♀.—Description of type. Resembling *Cavotettix proavus* Rehn & Hebard in the form of the vertex and wide frontal scutellum; size slightly smaller, apterous, the hind femora more elongate; body above granulate, slightly rugose, sparingly sprinkled with coarser granulations.

Pronotum having the dorsum compressed, angulate produced forward over the head to the middle of the eyes; the median carina of dorsum cristate, quite highly arcuate longitudinally, highest between the shoulders, and bearing small translucent punctulations when viewed against the light, such as occurs in *Nomotettix compressus* Morse; the dorsal prozonal carinae behind the anterior border nearly parallel, yet subconvergent backward; surface between the shoulders granulate, with no indications of elevated ridges as in *proavus*; lateral lobes of the pronotum with but one inferior sinus, the usual superior tegminal sinus entirely obliterated, and completely obsolete (in *proavus* represented by a notch, in *nullisinus* by a slightly wider shallow excavation); the scapular areas between the lateral carina and inferior margin at the sides of the pronotum substraight, very broad forward, wider than in *nullisinus*, the inferior margin near the sinus dilated opposite the articulation of the hind femora, from this point backward the margins of the scapular area gradually contracted to near the apex of pronotum; the blunt apex of the latter reaching backward beyond the middle of the hind knees nearly to their apices.

Tegmina and wings absent, or entirely hidden from view; a very minute vestigial tegmen, almost hidden, appears on one side only in the male allotype.

Hind femora much less robust and more elongate than in *proavus*, the greatest diameter forward contained over two and one-half times in the length; first joint of hind tarsi nearly twice the length of the second and third combined.

Length of the body, 9.5 mm.; pronotum, 8.5 mm.; hind femora, 5.5 mm.

♂.—A male paratype measures: body, 8.5 mm.; pronotum, 7.5 mm.; hind femora, 5 mm.

This form may be only a race or variety, of *proavus*, yet the several characters which differentiate it warrants its description as a distinct species.

Habitat, Clarksville, Tennessee (Blatchley).

Type ♀ and *allotype* ♂, Clarksville, Tennessee, in the collection of W. S. Blatchley.

Differential Synopsis of the Species of Cavotettix.

- 1 (2) Crest of pronotum moderately low; dorsal front margin truncate or nearly so, partly covering occiput, but not reaching to the middle of the eyes; minute tegmina of female much longer than one of the eyes; median carina of vertex strongly compressed and prominent; median carina of pronotum thinly cristate, arcuate and translucent forward, longitudinally lower over the middle area,

Cavotettix nullisinus sp. nov.

- 2 (1) Crest of pronotum rather high; dorsal front margin obtuse angulate reaching over the head to the middle of the eyes.

- 3 (4) Hind femora distinctly elongate; superior tegminal sinus of the lateral lobes obliterated; tegmina absent in female (or when present in male very minute, vestigial); wings absent; scapular area at the sides of the pronotum substraight, very broad and slightly dilated forward.....*Cavotettix apterus* sp. nov. or race.

- 4 (3) Hind femora moderately robust; superior tegminal sinus represented by a notch; tegmina of female about as long as one of the eyes; absent in the male; scapular area not dilated forward.

Cavotettix proavus Rehn & Hebard.

THE STATUS OF *NOMOTETTIX BOREALIS* WALKER.

Some years ago when E. M. Walker¹ described the species *Nomotettix borealis*, I was led to believe that this species was the same as *Nomotettix sinufrons* Hancock, described ten years before.² After a recent reference to this species by Rehn and Hebard³ where a synopsis of *borealis* is again given after a study of the type, I am more than ever satisfied that *borealis* and *sinufrons* are identical. The type of *sinufrons* in my collection is from St. Anthony Park, Minnesota, while Walker's type came from the Temagami District, Ontario.

